Big Rapids Public Schools

Teacher Guide to Investing/Retirement/HSAs

Complied by Brian Balch based off of the knowledge of the "Boglehead" group of investors. Bogleheads are investors who seek the guidance of Nobel Laureate, and founder/former CEO of the Vanguard Investment Group John Bogle.

Colleagues:

There are so many things I never learned in school or college about my family's future financial picture and how to get there. No one ever taught me investment options or what a 403(b) is or that I should be saving for retirement. Over the last 5+ years, I've read several books on sound investing principles and became an active member of the "Bogleheads" website forum. I wish to share what I've learned and how that applies specifically to us as teachers. Hopefully this guide will help you in the decisions you will make for your family.

First, we all must realize a few cold realities… our pension benefits and Social Security will not be enough for a comfortable retirement. As of today, my yearly pension benefit will be less than my first teaching salary (in today's dollars). Social Security is a safety net that was never intended to be your full retirement, but sadly many old people today that never saved money end up living off of Social Security and lead a sad, poor life in their remaining years. We must also realize that our retirement health care benefits are very questionable at this point and we must take personal control of these things to ensure a secure retirement. I'm not predicting doom, but we've seen the trends over the last decade in Michigan and the in the US and they are not good.

If you bought years towards your pension formula, this investment, although wise, will not be enough to overcome the gap between scraping by and being comfortable enough to maintain a reasonable standard of living. We must take steps to get involved outside of what will basically be given to us by the state – we do not want to be disappointed later on! As teachers, I know we aren't out for riches, but we certainly want to be flexible and earn enough to do some cool, non-greedy things later on in life like giving and leaving a modest inheritance.

We also do not want our entire future in the hands of an investment advisor paid on commission – these fees, both up-front commissions and annual fees, are hazardous to your wealth. If we learn a few basics, we can take control and save our hard-earned dollars. You will see later on that costs eat away at your earnings and erode your potential nest egg.

You also don't need a degree in finance to understand the basic concepts. I have no finance background, and I feel very secure about being a "DIY" investor. I feel all of us, with some homework of our own, can do the same. After reading through this and reading some of the suggested books and other materials, I'm confident we can all do a few basic things to ensure our future success.

COMPOUND INTEREST

Albert Einstein said "Compound interest is the most powerful force in the universe." If you take a penny and double it every day for 30 days, you'll end up with $5,368,709.12 at the end of the month!! Compound interest is where each successive year you earn interest on the principle PLUS the interest from the prior year. If left for a long time, a compounding investment grows much like an exponential graph. There is a rule of thumb called the "Rule of 72's" that tells us the number of years an investment will take to double in value. This is determined by taking 72 and dividing by the interest rate. An investment making 10% will double after 7.2 years. Both the interest you earn and the time you have to invest are very important.

An initial investment of $100 at 8% will grow to $215.89 in 10 years. After 15 years it grows to $317.22; 20 years $466.10, and 30 years $1,006.27. That's just $100… and the ratio applies if you figure a $1,000 initial investment ($10,062.66). The greatest factor for compound growth is time. Time cannot be made up; thereby you'll need to invest more if you have fewer years for compound growth to occur. If you are in your 20's or 30's… get going!! 40-50 year-olds still have time, just not as much. If left to compound, saving until you are 70 can leave you with a respectable nest egg.

STOCK/BOND MARKET BASICS

Don't panic. This isn't as complicated or convoluted as you hear on the news. Basically, stock purchase means you are a partial owner of the firm. Although you don't get to make any decisions over the company, as a stock owner, you get to participate in both the capital returns (price appreciation over time), and the dividends issued (profits corporations can share amongst stock owners). Over the lifetime of the entire US stock market, the Compound Annual Growth Rate or CAGR (explained later) of capital gains and reinvested dividends is somewhere between 9.8-10.3%. The Bond market as a whole will earn less, somewhere between 6-7%, but is a much safer and more stable investment. Contrary to what some finance pros teach, you really need <u>both</u> in your portfolio.

Mutual Funds are a large basket of stocks and/or bonds that investors can purchase shares of. This offers instant diversification and is much less expensive and less risky than purchasing individual stocks or bonds. Mutual funds come in a wide variety based on what sector or group of stocks/bonds are purchased. There are Large Cap funds (S&P 500 for example), Mid/Small Caps (Medium/Small companies respectively), International, Sector (Real Estate, Health industry, etc.), Bond Funds (Government, Corporate, Municipal, Short/Intermediate/Long-term for each) and "Fund of Funds" which offer 3-4 mutual funds all wrapped up in one. Which funds to choose and what percentage to have in your portfolio will be discussed later.

There are a few key things to understand before selecting mutual funds for your investments. First, <u>costs</u> matter the most. In fact, costs are the ONLY factor shown in empirical research data to be a predictor performance. Costs directly subtract from your yearly earnings… so if the market makes 9% in a year, you get 9% <u>minus</u> any load commissions or expense ratio percentages. If you own shares of a mutual fund that made 9% with a 1.5% load and a 1.5% expense ratio, you net only 6% that year *not* including inflation (yuck). Compounding this 3% deficit (9% gross return minus 3% expenses = 6% net return) over a long time can steal away a lot of your wealth. If you invested $10,000 and left it for 25 years, your return at 9% is $86,231; however, you actually only invested $9,850 (1.5% load off the top), and only made 7.5% per year after your expense ratio. This leaves you with a REAL NET RESULT of $60,069. *THAT IS A DIFFERENCE OF $26,162, a full 30% less!* **IT GETS WORSE…** your retirement is very likely to not be withdrawn all at once, so when left to compound for another 25 years of retirement, your 9% return should yield $743,577. However, with the 1.5% expense ratio, your $60,069

(remember the 1.5% load you paid up front?) will only be $366,321!! That's a real net loss of about 50% of your retirement account due to costs! If that doesn't make you sick to your stomach, please visit your local Psychiatrist office later on today… Costs also matter in what you pay your financial advisors or firms that handle your investments – some financial firms charge annual fees of 1-4%. With the math outlined above, you can see that these types of fees are definitely hazardous to your wealth. My goal is to help you be able to do this on your own without losing these precious dollars.

You must also decide what percentage of stock and bond mutual funds to own – this is known as "Asset Allocation." You need to own funds that are not correlated in how they perform during certain market conditions (to put it more simply, you need to own funds that "Zig" while your other funds "Zag.") As stocks run upward (known as a "Bull" market), bond funds tend to not do as well. When stocks plummet, bond funds perform better due to the drop of prevailing interest rates. Although stocks out-earn bonds over time, stocks are very volatile and rise and fall sharply. Bonds can help stabilize a portfolio's holdings and create a stable income stream in your retirement. During a bull market, having bonds in your portfolio will cause it to lag a little due to the drag on your bond holdings, but during a bear market or recession, your portfolio won't take nearly as big of a dive because you don't own 100% stocks and a good portion of your portfolio is taking a healthy climb. In fact, an 80/20 (stock/bond) allocation statistically makes a mere percentage point less than a 100/0 portfolio with MUCH less risk and volatility. One point less in performance is worth sleeping at night!

There is no perfect number for stock/bond allocation, but an old "rule of thumb" is to own your age in bonds. Since life expectancy has risen in the last few decades and people tend to live longer (i.e. need their nest egg to last longer), it may be more prudent to own your age in bonds "minus 10." In other words, a 30 year old could choose to have an 80/20 allocation. This is fairly conservative, but also extremely wise. There are other variations of this rule (age minus 20), but try to come up with a way for your bond allocation to rise as you age and enter your pre-retirement and retirement years.

Performance of a mutual fund is not nearly as important as investment firms claim. In fact, on average, less than 1% of the top performing funds in one year will remain at the top (actually, the cold reality is that many top performing funds in one year end up at the bottom the next!). Right next to the risk of losing your money is the risk that you will not predict next year's top-performing fund manager (chances are, you won't). It is almost counter-productive to only select funds that perform the best like those on the Kiplinger's Top 25. These top-performing funds are also usually more expensive and a lot of times carry a load (up-front commissions). AFTER FEES, top performing funds will lag behind the average market return. I say again – YOU CANNOT ACCURATELY PREDICT WHAT THE TOP PERFORMING FUNDS WILL BE IN THE ***FUTURE*** BASED ON ***PAST PERFORMANCE***.

You want to pick NO LOAD mutual funds with the LOWEST EXPENSE RATIOS (fees you pay every year for owning the fund shares). Expense ratios should not exceed 0.20%. Don't even look at performance data. If you select a good mutual fund company and buy INDEX FUNDS, you should not need to even consider performance as one of your decision criteria. Index funds will be explained next.

INDEX FUNDS

Index funds are precisely what their name implies – they are mutual funds that own the entire spectrum of stocks in a given market index. For example, the largest mutual fund in the world is the Vanguard S&P 500 Index Fund which owns all 500 stocks represented in the S&P 500 index weighted proportionally (so Apple and Exxon holdings will outweigh the smaller companies). Index funds take little management, therefore incur LOWER

COSTS (remember, cost is the <u>only</u> thing that can accurately predict a funds' performance) and eliminate the risk of not having next year's top-performing manager. Index funds have the lowest expense ratios of any fund and are almost always no-load. There is also much lower turnover each year because the stocks aren't being traded and sold actively… this is important if you invest in mutual funds outside of your retirement accounts because any sale of stocks in your mutual fund for a profit creates a taxable event (capital gains). You can tell a fund's load, expense ratio, turnover ratio and performance on websites like Google Finance and Morningstar.com. For example, the Vanguard S&P 500 Index Fund (VFINX) has no load, an expense ratio of 0.17% (84% lower than the average fund with similar holdings) and has a 3% stock turnover annually (this is <u>very</u> tax-efficient).

Index funds almost never beat the market, they simply follow it. However, the best news is index funds almost never <u>***underperform***</u> the market. They also eliminate management risk (again, you cannot predict which fund managers will be a top-performer <u>BEFORE</u> the fact, and those already at the top almost always regress to the average). In one year, you will almost never see an index fund at the top of a performance chart. But over 15-20 years, almost ALL categories of stock and bond holdings are led by index funds due to their low costs and the nature of index funds immediately reaping the benefit of changes of stock prices that active managers are always late to lock in. By the time the market makes a move, active managers miss the best prices while an index fund (by design) will ride the wave up automatically.

Index funds are sort of known in the investment world as boring, unsophisticated, and poor-performing, when in reality, it is probably the most sound investment approach recommended by all of the top investors in the US like Warren Buffet, Peter Lynch, etc. Index funds ensure the average person gets their share of the market with the lowest possible costs. To put in more simple terms, you want to get a "B" in investing… striving for an "A" might get you a "C" (or worse, a D or E) and you are almost guaranteed to outperform the "A" student in the long run. Don't chase performance.

MAJESTY OF SIMPLICITY

Since we cannot accurately predict which stocks are the winners and which are the losers <u>*before*</u> it happens, it is most wise to simply own the entire market. In fact, there are index funds that own the Total Stock Market, Total Bond Market, and Total International. These index funds each hold literally thousands of stocks – basically a representation of the entire world's corporate firms in 3 simple funds.

With just 3 index funds, you can own the entire US stock and bond markets and the top world stock markets in Japan, Europe, Brazil, Australia, etc. To say this is diversified is an understatement. If there are stocks within the funds that lose, there just as many that will win. You get to reap the "average" return and earn your "B" without risking it all on the winners who will eventually regress to the average (or worse, to the bottom!).

It gets even better – there are mutual funds known as "Fund of Funds" that own each of the Total Stock, Total Bond and Total International indexes with no load and a very low expense ratios. Vanguard and other reputable firms have "Target Retirement" funds that are typically in increments every 5 years: 2015, 2020, 2025, 2030, etc. Each Target Retirement fund has 3-4 funds inside of it (Total US, Total International, Total Bond, and sometimes Total International Bonds). The funds start out more aggressive (own a larger portion of stock holdings than bonds) and progressively get more conservative (bond holding gets larger) as you near the target date. This is an excellent "set and forget" choice for the novice investor wanting his or her fair share of the market and not have to worry about rebalancing or making a complicated portfolio more conservative as they age. If you want a fixed Asset Allocation (stock/bond ratio), then you can select Vanguard's LifeStrategy funds – these are set at

80/20, 60/40, 40/60 and 20/80 and do not change over time (you can certainly change funds later on). The cool thing about both Target Retirement and LifeStrategy funds are that they are rebalanced automatically to the desired asset allocation so you can literally be "hand's off." Target retirement funds are the least expensive initial investment at Vanguard ($1,000 initial investment). Other reputable firms have an even lower initial investment amounts, just be sure it uses index funds for its holdings and that the expense ratio is below 0.20%. Caveat Emptor – Target Retirement funds get VERY conservative (probably too conservative in my opinion) by their target date, so look closely to see which fund matches your risk tolerance. You could consider locking into a LifeStrategy fund at a certain point. For the BRPS teacher, I would strongly encourage everyone to consider a Vanguard Target Retirement Fund or a Vanguard LifeStrategy fund for their entire investment portfolio – you own virtually the entire world in 4 different funds at the lowest price in the industry managed by someone who simply needs to make sure the funds match the current index and you don't have to rebalance annually. It really is that easy, and you are virtually guaranteed to beat 70% of the investing community (after fees) over a long period of time.

You could also buy each of the funds separately (and less expensively); however, you will need to rebalance to your initial Asset Allocation at least once a year. Not doing so runs the risk of letting one of your funds run well beyond your desired allocation and then taking a significant dive (and thereby a greater percentage of your portfolio loses money). Again, Target Retirement or Vanguard LifeStrategy funds eliminate the need for rebalancing. Rebalancing in non-retirement accounts can also create a taxable event (but can also allow for tax loss harvesting – you'd want to seek help from a fee-only financial planner for this).

RISK

The news does a great job keeping the public in fear and anger about the world. We all remember seeing the horror stories of the market crash of 2008 into March of 2009 and the market continued to wallow around through the end of 2011. However, what the news does a horrible job of covering is the fact that the stock market had one of its best years in history in 2013 (around 30%). In fact, from March 2009 (the very bottom of the S&P 500 in recent memory) into 2010, the market made an unspoken rise of around 33% - not as much as it fell in the housing crash of 2008, but a healthy return for anyone who held on to their stock fund shares and continued to invest while the market was at the bottom.

Since the stock market's inception, every rolling decade ('00-'09, '01-'10, etc.) has made a positive return except for two (Great Depression era and the end of 2011 that included 9/11 and the housing market crash). As I stated at the beginning of this document, the compound annual growth rate for the market is around 10%. Some years more, some years less, but the "average" is 10%. If you were to leave your money alone and continually invest for 25 years, you will earn anywhere from around 6% to 12% based on historical returns with a 75/25 Asset Allocation. Obviously the longer you hold your investments and continually invest at regular intervals, the better. Selling at market lows and buying at the market highs is counter-productive to your investing success. The interesting thing about the stock market is that for every major negative event in the news, the market returns to its original value within one year except WWII. For 9/11, the market recovered fully in 56 days after Wall Street re-opened…. American companies as a group are a fairly safe place to invest your dollars over a long stretch of time.

There are several types of risk to consider when investing. First, *past performance does not predicate future performance*. As outlined above, market risk after a major geopolitical event can be smoothed out if you incorporate a "buy and hold" strategy – buy at regular intervals (monthly) and hold for the long-haul. In other words "Stay the Course" and don't make investment decisions based on the newscaster's prophecy.

Other risks, as already mentioned above, are avoided by holding index funds – management risk, diversification, picking winning funds <u>before</u> the fact, stock volatility, and paying too many fees. Index funds take little management (less motion in trading is better for the investor), offers a broad spectrum of stocks or bonds, includes both the winners and the losers that ensures you earn what the index earns, and are the cheapest funds in the industry.

How we arrange our portfolio also can manage risk. As I said earlier, we want to hold funds that "Zig" when others "Zag." What this means is that the Total US Stock Market, Total International and Total Bond move almost entirely independent of one another. If the US is sluggish, there could be international markets doing very well. Bonds also make up somewhat for drops in the stock market. You also avoid the risk of significant loss by maintaining a balanced portfolio according to your desired Asset Allocation (stock/bond ratio) and make periodic rebalancing (again, you can avoid having to rebalance by using Target Retirement and LifeStrategy funds).

THINK LONG-TERM

Market volatility and risk can also be smoothed out by implementing a "Buy and Hold" strategy. As stated earlier, no one can accurately predict market direction day to day, and it is impossible to predict next year's winners and those that will remain a winner for a long period of time (in fact, yesterday's winners have a higher chance of becoming tomorrow's loser). If we think long-term, buy our index fund shares and hold them for a very long time, we will outperform about 70% of the investment community.

There are several major reasons to buy and hold the entire stock, bond and international markets. First, you are the most diversified. Second, holding on to your shares means you will not react to market news and sell when doom is predicted. Third, continuing to invest at both the highs and lows creates <u>dollar-cost-averaging</u> where you end up purchasing more shares at lower prices and fewer shares when prices peak (buying more when the price is low and less when the price is high). Once you develop your plan discussed below, set it, forget it, and STAY THE COURSE NO MATTER WHAT!!

INVESTMENT ACCOUNT OPTIONS

The greatest burden to potentially destroy our investment returns is taxes. We all have a couple tools at our disposal for tax-advantaged investing (you will pay taxes at some point – there is no free lunch). First, all of us have a 403(b) plan here at BRPS which is a list of vendors to contact to set it up. You want to set this up through Central Office through AUTOMATIC PAYROLL DEDUCTION (saves taxes). I have not personally gotten that far, but my concerns for setting up the 403(b) are that we are offered LOW COST INDEX FUNDS without any annual commission paid by a PERCENTAGE of our total account. This, over time, will erode your potential returns, so make sure costs/commissions are clear from the front and choose the vendor with the lowest fees. Caveat Emptor – investment managers are paid on commissions; very few only charge a one-time fee for setting up the portfolio. People who make their living off of another's investment accounts could be a conflict of interest to your financial success. Again, be sure you know the fees involved – and that you aren't being pushed into buying funds that are actively managed with loads and high expense ratios. One of the Boglehead advisors in the book *Bogleheads Guide to Investing* said (before switching to DIY investing) "I put two kids through Harvard – my broker's!"

The 403(b) is your own account that you can invest pre-tax dollars up to a set limit per tax year (for 2014 $17,500 for married couples, $23,000 for couples over age 50). These are traditionally set up as insurance annuities, but you want to avoid these products since your 403(b) is already offered tax protection by the IRS. Annuities are much more profitable for the brokers – so beware. Within your 403(b) account, you pick a vendor from the BRPS approved list (I'd shop the vendors first), select your low-cost index funds that cover the total stock, bond and international markets, or pick a "fund of funds" like Target Retirement or LifeStrategy and set up automatic payroll deductions. The amount you invest does not show up as taxable income in the year it is contributed, and the money grows tax-deferred until you begin to withdraw. Upon withdrawal, the money is taxed at your ordinary income tax rate just like your pension.

Most people also have a Roth IRA provision that you can take advantage of. A Roth IRA is an after-tax investment account that grows tax-deferred, and when you start withdrawing money at age 59 ½, your retirement income from the Roth account is tax-FREE. Roth IRA accounts may be set up at an investment brokerage house, online at Scottrade or TD Ameritrade, or directly through the fund's custodian like Vanguard or Schwab (Vanguard Roth IRA accounts are virtually free if you invest in Vanguard funds). For 2014, married couples may EACH contribute $5,500 ($6,500 if over 50) regardless of whether or not the spouse has an earned income. Your combined household income cannot exceed $181,000 to contribute the full amount and it phases out completely above $191,000. This is a great account because it has the most flexibility of investment choices and it will lower your tax rate in retirement because you will receive a large portion of your income without any taxes owed. The contributions (not growth) of the Roth IRA may be withdrawn at any time, although I highly recommend you do not do this unless you are avoiding a catastrophe of some kind. Always remember, you can borrow for kids'college, medical bills, cars, etc. but you CANNOT borrow for retirement! Use the retirement accounts for what they are intended. Roth IRAs also have great advantages for estate planning.

Traditional IRAs are much like the 403(b) – you can reduce your federal taxes by how much you contribute (up to certain limits, and if you qualify) and retirement withdrawals are taxed at your ordinary income tax rate. The limit is $5,500 EACH for you and the spouse, but the income phase-out for tax deductibility (since we have retirement offered at our work) starts at $96,000 and stops at $116,000. You can still contribute if you make more, but your contributions cannot be deducted from your taxes today. You cannot withdraw any contributions or earnings while it grows (that's ok), and you are required to take the minimum distribution rate at age 70 ½.

If your income exceeds the IRS limits for a Traditional and/or Roth IRA or you wish to invest beyond the contribution limits in the same tax year, you can open a taxable account at a brokerage house, online, or directly through the fund company. These accounts are great if you want to save and invest money for 5-10 or 15 years for a major purchase and you can pull the money out without tax penalties (but you will owe income taxes on the capital gains upon withdrawal and any capital gains created while the investment grows). However, as I said before, the more active the fund (the more they sell the stocks), the more capital gains taxes you pay each year. If you open a taxable account, be sure to hold at least 5 years to avoid paying short-term capital gains. If you hold the fund at least 5 years, you will pay the lower long-term gains rates when you make a withdrawal. Since stock funds do not generate capital gains nearly as much as bonds (bonds pay you income based on the interest rate of the coupon each year until maturity – which is all taxable if not held in a retirement account), I strongly recommend you hold only low-turnover stock funds like the Total Stock Market or an S&P 500 index fund in non-retirement (taxable) investment accounts. If you run out of space in your 403(b) contribution, buy primarily Bond funds in your 403(b)/Roth IRA and finish out with stocks in your non-retirement (taxable) account. Bonds need to be protected from taxes. If your spouse is generating a large income and you wish to heavily invest beyond the 403(b) provision, consider tax-exempt bond funds or state municipal bond funds that receive special tax

treatment. These don't perform as well as corporate bonds, but will save on your State and Federal income taxes. In that situation, you will want to seek a fee-only investment professional.

Those new to teaching in the last 2 years were offered the state 401(k) plan and are no longer part of the pension system. These teachers REALLY need to be aware of their investment options and IMMEDIATELY start some sort of contributions towards their retirement (between 5-10% annual contribution at a minimum)!! The funds offered in the Michigan Public Employee 401(k) have ING funds – some are good, some are not. The SSgA Target Retirement funds are all Index-based and work much like other companies like Vanguard and T. Rowe Price. These are good choices. Again, you may not like how conservative these funds get by the target year, so be watching for that.

WHICH ONE DO I DO?

This is a very personal question that only you can answer. Start by asking yourself if you'd prefer to save on a little bit of taxes now or a lot of taxes in retirement (remember, your pension is taxable along with any part time work you may be doing!). If you want to save taxes now, go with the 403(b) – again, assuming you get good investment choices with very low fees (remember that a 1-4% annual fee is taken right off the top of your portfolio's 9% return, MINUS loads, MINUS the expense ratio and NOT including inflation!!). If you want to potentially save taxes in the future, start with the Roth IRA for you and your spouse. Your 403(b) income is taxed for the rest of your life (and your pension), but the Roth income is tax-FREE for life. As you can see, I'm biased towards the Roth because I get flexibility and control over my investments and it's free of taxes in retirement. After I put my first $11,000 in our Roth accounts, I'd move to the 403(b) next and possibly a Traditional IRA last. 5-year or longer major purchase savings (house, car, cool vacation) should be saved in taxable accounts outside of your retirement savings. Do not invest in the stock market for less than 5 years… you have a 97% chance of making money if kept in the stock market for 5 years, but only around 60% if held for 1 year.

WHEN SHOULD I START INVESTING?

Compound interest is magical if left for 40-50 years; however, most of us are behind the 8-ball. The sooner you start, the longer your investments have to compound. However, if you have a lot of debt, high living expenses (surely you don't living in Big Rapids….), or kids currently in college, finding money will be tough. No one should start an aggressive savings program unless they have an emergency fund of 3-6 months of living expenses and have paid off their high interest rate debts (credit cards, etc.). My wife and I took the Dave Ramsey class, so we are not starting our investing until we are completely out of debt (including student loans, but not including a mortgage) and have our emergency fund. Kids' college funds should come after you start retirement investing – again, you and the kids can borrow for college, but you CANNOT borrow for retirement! Once you make regular investments, you can choose to pay off your house faster, especially if you have a high rate or a 30-year mortgage.

Most financial planners say 10-15% of your income should be invested monthly. I'm not counting on Social Security by the time I'm old, so I'm going to go with 15%. Once you calculate 15% of your income, divide by 12 and set this up on automatic checking withdrawal or payroll deduction for the 403(b) and split into the respective accounts you choose. Just remember not to exceed the IRS limits for any of these accounts.

HOW DO I DO ALL OF THIS?

403(b) – this is a form you fill out through Central Office and set up with Cathy for automatic payroll deduction. Most of us can contribute $673 per pay period (673.08 x 26 = $17,500). You'll need to select a vendor from the BRPS 403(b) list, open an account, and begin investing. This money goes in pre-FICA/Federal/State and City tax – it's a great deal if you wish to save on taxes now.

Roth IRA – you'll need to open a Roth IRA account outside of our district. Again, this can be done at an online discount brokerage firm (Scottrade, Etrade TD Ameritrade). Remember, you can only do automatic payments into Mutual Funds, not ETFs, so the commission-free ETFs offered by TD Ameritrade may not be a good thing for you in a Roth IRA. You can also open an account directly through Vanguard, Schwab, T. Rowe Price, etc. and have much lower fees for using their mutual funds inside of your Roth IRA. If you are married and meet the income limitations, you can contribute up to about $423 per pay period. Setting this up with automatic checking withdrawals is a great idea. The last thing you'd want to do is open a Roth IRA at a bank (horrible rates of return) or a brokerage house (high fees and commissions).

Traditional IRA – Similar to the Roth, except at the end of the year, you'd need to remember to claim this as a tax deduction on your IRS 1040 return if you are within the income limitations.

401(k) – you set it up online, select your chosen ING funds, and set up automatic payroll deductions like the 403(b).

WHICH MUTUAL FUNDS SHOULD I CHOOSE?

The most important decision in all of investing is your Asset Allocation, not which funds to pick. If you pick index funds, you know that fund performance and risk will be very similar from company to company. Choose what Asset Allocation you are comfortable with. You can also put this to the "sleep" test – what percentages allow healthy portfolio growth in a bull market, but let you sleep at night when stocks lose 40% or more of their value in one day. Your Asset Allocation has to remain locked in NO MATTER WHAT – we cannot get excited when stocks hit record highs like last year nor can we sell when they dive like in 2008. Pick your stock/bond ratio, contribute your money according to these percentages, and rebalance periodically (you do not need to rebalance if you pick a Target Retirement or Vanguard LifeStrategy fund ☺). Your "age in bonds" is the rule of thumb, but you can subtract 10, 15 or 20 to give you a greater stock holding in hopes of higher returns.

Remember also that the only factor that can predict fund performance is cost. Choose the index funds with industry-low costs. Vanguard is the champion of low-cost investing since it is a co-op and is founded on rock-bottom cost to the investor. Also, Vanguard offers Admiral shares of their mutual funds after the fund reaches $10,000 which are even cheaper than the already low-priced Investor shares. Admiral shares are only offered for individual funds, not Target Retirement or LifeStrategy.

Your next decision to make is your allocation of domestic and foreign stocks. If you own a Target Retirement or LifeStrategy fund, the stock allocation done for you and is roughly 80/20 (US/International). Most books I've read suggest no more than 20-25% international stocks. You could invest completely in the Total Stock Market (US only); however, remember that US stocks may "Zig" while International stocks "Zag."

The more seasoned investor looking at potentially increasing performance could consider things like REITS (Real Estate Investment Trusts) and Small Cap Value funds (small company stocks generating more dividend

income than capital appreciation). Both REITs and Small Cap Value funds can be found as an index fund (low cost, owning the entire sector's stock holdings), and perform as well or better than the S&P 500 index (and also Zig-Zag in different ways than the S&P). Caveat Emptor – these funds are also more volatile and are less diversified then a Total US Stock Market Fund. REITs and Small Caps typically peak higher than the market average, but also fall faster and harder. Each sector fund should represent no more than 10% of your total stock holdings. REITS and Small Caps are NOT offered in Target Retirement or LifeStrategy funds, but are a small percentage of the Total Stock Market index fund. A wise investor can "tilt" their stock holdings by adding REITs and Small-Cap Value in hopes of improving their portfolio's performance, again, in moderation.

RETIREMENT PLANNING

Once we retire, we are eligible for pension payments (those under the old MSPERS plan). I strongly recommend holding off on IRA and 403(b) withdrawals for at least 5 more years to allow your portfolio to continue to compound. There are specific rules for each account as to WHEN you can start to withdraw money – each account mentioned above require you to be at least 59 ½ when you start withdrawing funds to avoid penalties. If you retire from teaching before age 59 ½, you may need to do some part-time work or start a new career to make up for the gap between your old teaching salary to your pension.

Social Security is a whole different set of rules and regulations that you should find out more or read about online. The basics are this – you can begin taking Social Security at age 62; however, this locks you into a lower benefit for life. By waiting a few years, you can take full social security at age 67 (if you were born after 1960). Waiting just 3 more years adds on even more to your Social Security benefits. Visit ssa.gov and learn more about your SS benefits. Waiting until 67 or 70 raises your monthly benefit for life; however, it is less time that you get to enjoy it. Again, we all know Social Security is not enough by any means for a comfortable retirement so be sure to invest outside of what you presume to be your pension and Social Security benefits.

I am personally going to retire sometime between 55 and 60, try to find some part-time work or another career, take Social Security at age 67, and start tapping my investment accounts as soon as I don't feel like working any more or need some money for something really cool.

The withdraw rate on your investments is extremely important. Not only do you need to earn as much compound interest as possible and invest as long as possible, but you need to withdraw your funds at a rate so as not to exhaust your portfolio by the time you leave this earth. If you wish to leave an inheritance to your kids or grandkids, you will need to factor this into the withdraw rate decision as well. A nest egg with a 50/50 Asset Allocation has a 90% chance of lasting 30 years at a fixed withdraw rate of 4% (some studies say upwards of 95-98% success). Since most of us have a pension and SS benefits, we will not need as much as those who must rely only on their investment savings and SS – you could go with a 3% fixed withdraw rate. Having a pension, SS, and a healthy investment account will make you likely to not to run out of money before you run out of breath. You can choose a fixed DOLLAR amount of income and give yourself a cost of living raise each year, but I strongly recommend that your first year you do not withdraw more than 3% of your entire portfolio. A fixed withdrawal RATE of 4% or less has a better chance for survival, but your retirement income is at the mercy of the stock market and could vary greatly from year to year.

Go online and find a few retirement calculators that allow you to adjust your projected investment returns during the withdrawal stage (no more than 7% since your funds will be fairly conservative), adjust for inflation (between 3-4%) and also enter your current savings and annual savings rate. I also suggest you seek out

the "Retirement Calculator from Hell" – basically the worst possible 20 year period to retire back in the 60's and what asset allocations and withdrawal rates could survive the long bear market. The website is in the resources at the end of this pamphlet.

HSA INVESTING

Perhaps the best move our union has made since I've been in Big Rapids is switching to the MESSA ABC Insurance plan. This plan has a Health Savings Account (HSA) through Health Equity, and our maximum yearly deductible of $2,500 per family is covered by the district under the current contract. This plan is much less expensive and has the best tax advantages of any IRS regulation in the US tax code.

The money in your HSA is YOURS, tax-free, to use for qualified health needs. At age 65 you can use the money for other needs (cool vacations, etc.) and it is merely taxed at your ordinary income tax rate like a 403(b) or Traditional IRA. The money goes in pre-tax, grows in the bank account or investment account tax-free, and can be withdrawn at ANY TIME tax-free for qualified health needs – a TRIPLE TAX ADVANTAGE! (see IRS regs on what constitutes as qualified expenses).

You can also contribute additional funds up to the maximum IRS contribution limits. For 2014, a family can contribute a TOTAL of $6,550 – so an additional $4,050 above the $2,500 BRPS employer contribution. This money rolls over year after year and you can choose to invest your extra cash into the investment account. You then select mutual funds to invest the money in, and it grows until you begin withdrawals. This is an extremely important aspect in my opinion, because this COULD be the only health care we have in retirement judging by how things have gone with the State of Michigan. Saving now is VERY important and again, any money you don't end up needing for health care can be used for anything after age 65 (minus your tax rate).

Health Equity's investment fund selection quite frankly stinks. The funds are very expensive, and some carry loads (commissions paid up front). You can legally transfer the money in your Health Equity bank account to a different HSA company's investment account so long as you have the required minimum balance in Health Equity. I am personally going to take all remaining funds at the end of each year on December 31st and will transfer it to HSA Bank that offers a TD Ameritrade account with Vanguard commission-free Index ETFs (ETFs are a lot like mutual funds and actually carry lower expense ratios than their comparable index mutual funds but cannot be automatically invested in each month from your checking account). Just make SURE the Big Rapids employer contribution clears into your Health Equity account before moving anything to another account to avoid minimum balance fees. The transfer will not be taxed or penalized if it is a direct transfer.

You do not HAVE to pay all of your medical expenses out of your HSA if you choose. You can keep these non-reimbursed medical receipts you pay out of pocket for the rest of your life in a file and "cash them in" completely tax-free as long as you were covered by an HSA plan when the bill was paid out of your pocket. I plan to pay as much as I can out of pocket and allow my HSA account to grow. Each year's non-reimbursed medical receipts should be kept and accounted, and you can then choose to withdraw money for any reason later on by reimbursing yourself from the HSA account. Read the "qualified medical expenses" document carefully – much of the health section at Meijer qualifies except toiletries.

If you choose to contribute above the district's contribution (you can put in up to an additional $4,050 per year for a family) this needs to be made by PRE-TAX PAYROLL DEDUCTION, not directly out of your checking account. Although you can write off HSA contributions on your IRS form 1040, automatic payroll deduction saves

you on State/City/FICA taxes, too! Since we saved a little bit on MESSA co-insurance this school year, I put the difference of that savings on payroll deduction into my HSA and plan to bump it up again next year when our co-insurance goes down again.

Remember, if you use your VISA to pay for medical needs, your Health Equity account is automatically deducted. If you want to save receipts as I mentioned above, be sure to pay with your own money. Always wait for the doctor's office to process your MESSA insurance card (not VISA) first to get discounts, then run your VISA or pay out of pocket.

Put differently, the HSA in some ways is better than a Roth IRA – there are NO income limits, your money goes in pre-tax (FICA/Federal/State/City), grows tax-free, and can be withdrawn tax-free for medical now and in retirement or as ordinary income after age 65. And, as of this contract, you have $2,500 put in by the district! Save your pennies and avoid unneeded visits to the doctor by making smart, healthy decisions for you and your family.

LIFE INSURANCE

I will not discuss insurance at great length, but I do want to make sure we understand life insurance a bit more. First, if you have a family and they are eating off of your income and if you die, they need to be protected with income that you are obviously unable to produce. If your spouse earns an income that is needed to off-set family expenses, then obviously you would want to insure that portion of the income as well. Life insurance is to replace lost income due to death, but nothing more. Life insurance is ***<u>NOT</u>*** a place to invest! Stay completely away from cash value life insurance such as Whole Life, Variable Life, Universal Life or Variable Universal Life. The fees paid to invest in these accounts are absolutely horrendous. Also, if you were to die while carrying a cash value policy, the insurance company will pay only the face value of the policy and keep the cash value. If this sounds like a good deal to you, skip the Psychiatrist and head straight for the MRI…

What you (EVERYONE) needs to purchase is 15-20 year Term Insurance. This is much less expensive and you do not have a rip-off savings program built into it. If you carry a 15 year mortgage or less, are out of debt and save like I've outline above, you will have enough assets to make it if you die after the 20 year term is up. You need to shop an independent insurance agent for the best possible prices on Term Life. We currently have a $5,000 Life and AD/D benefit in our insurance pak and this is NOT enough!! It might be enough to get your family by or burry you, but it won't produce an income to sustain your family for 15 years. Get Term Insurance in place, cancel your cash value plan, and use the cash value to invest somewhere else. You should carry roughly 10 times your income ($40,000 earner should have a 20-year $400,000 Term Life policy). My Term Life policy is through SBLI, but you can certainly shop for a better deal. Prudential, Northwestern Mutual, etc. are Cash Value companies – stay away!

COLLEGE FUNDS

There are several options available to us to help save for kids' college. First is savings bonds (series I or EE) – which carry many technicalities with beneficiary designation that, honestly, you really don't want to mess with and also give you relatively low rates of return. You can also open an ESA (Education Savings Account or "Education IRA"), but contribution limits are stopped at $2,000 per year (income limit is $220,000 if you are married). This plan, also known as the "Coverdell Education Savings Account," may likely phase out in the future.

The great thing about the ESA is that you can contribute like a Roth IRA – after-tax contribution, tax-deferred growth, and can be withdrawn tax-free when your kid needs the money for qualified educational expenses. The bad thing is that you can only contribute up to $2,000, so some firms don't carry ESA accounts anymore because it would drive up the prices of their other investments to carry accounts with such low balances (Vanguard no longer has an ESA account option). You could certainly use this for your first $2,000 per year (again, use a good balanced index fund with around a 60-70% stocks).

The 529 Plan offered by the State of Michigan is actually quite good and operates much like the ESA. You have two choices: Pre-paid tuition or investing into mutual funds. I'm going to go with mutual funds because I feel the pre-paid tuition does not offer a good enough rate of return and it is not as flexible. Contributions to the investment funds can be deducted from your State taxes (up to certain contribution and income limits), and there is no annual limit – just a maximum account balance of $235,000 per child. Anyone may contribute to benefit the child – grandparents, relatives, etc as long as you don't exceed the maximum balance. The investments go in after tax, grow tax-deferred and are tax-FREE (much like a Roth IRA) if used for qualified educational expenses. Within the Michigan 529 Plan, they offer many different investing style funds – conservative, moderate, aggressive styles that change as the child ages. I will likely use the "Balanced" fund that has a fixed 60/40 asset allocation of index funds. All of the funds offered in the 529 have TIAA Cref index funds at their core with low expense ratios (these are good funds).

PENSION PLAN

Those of us who still qualify under the old plan (hired before Sept, 2012) need to go onto the ORS website and check your personal information, beneficiary information and run the calculator for your projected pension. This is a good "chore" to do periodically. Remember, if you select any amount of survivor benefits, your pension is decreased. You need to factor this in when deciding how much to invest in your Roth IRA, 403(b) or 401(k). Survivor benefits may be what your family needs when you die, but your pension income will need to be supplemented elsewhere while you are alive.

THE "DAVE RAMSEY" DIFFERENCES

Those of us that know of this plan or even follow it may feel my advice at times is backwards. I think Dave does an excellent job with helping folks get their finances in order and offer a step-by-step plan to get out of debt, live on a budget, and save. I am a listener and a big fan of the show and both my wife and I attended his Financial Peace class. His investing advice is very unrealistic and he is using incorrect mathematical information when projecting fund outcomes. Dave always says "12% growth" because the <u>average</u> S&P 500 return since 1926 is about 11.8%. However, since we ride both the waves up <u>and</u> the waves down over time, you cannot use the mean market returns as your calculator (you simply don't get an accurate number). The Compound Annual Growth Rate is the realistic mathematical return of the stock market (around 9.8-10%). To illustrate, say you invested $10,000 that earned 10% one year, -40% the next, and 60% the last. The average of these years is 10%; however, your $10,000 earned $1,000 the first year (now $11,000), lost $4,400 the next (now $6,600), and gained $3,960 the last (now $10,560). You can see in this example that you really don't earn an "average" of 10% to net $11,000 – you actually only end up with $10,560 due to the proper mathematical formula of Compound Annual Growth. The difference of an <u>average</u> return of 12% and a <u>CAGR</u> of 10% makes a huge difference when using retirement calculators to figure out how much to save. Do NOT use 12%, and don't even use 10% since this is for 100% stock

allocations. A reasonable expectation for a balanced 75/25 portfolio is around 7-8% over 25 years or more (NOT including inflation of around 3-4%).

Dave is also a huge proponent of actively managed funds for a couple reasons. First, he feels actively managed funds outperform the market index (he picks his funds almost exclusively based on performance). Second, he has a program of Endorsed Local Providers that are commission-based investing professionals that push actively managed funds (that are more expensive and therefore draw higher commissions). As I mentioned above, the empirical research data shows that only cost can accurately determine a fund's performance (higher the cost, lower the return). Actively managed funds are more expensive (many funds Dave uses carry a load), and have higher turn-over (if carried in a taxable account). You cannot predict tomorrow's next top fund manager based on yesterday's performance. You can't invest looking in the rear-view mirror, and *past performance does not indicate future performance*! Also, there is a powerful gravitational pull in investing for all funds to regress to the mean… if they start high, they almost certainly fall to the average. There is much research to prove this. Picking today's 10-year winning fund will ***NOT*** guarantee that it will continue to win for the next 20-30 years (it has a 97% or greater chance of not being tomorrow's winner). One of the greatest mutual funds in history was the Fidelity Magellan fund that out-performed the S&P 500 for several decades. People thought it would go on winning forever… until it came up about 5% short of the S&P one year back in the 90's. As in sports, the best cannot remain the best forever…. You need to be "average" with 3-4 index funds and ignore performance data.

Dave also doesn't recommend bonds for investing. Bonds are protection – sort of like insurance for your investments. Yes, bonds can lose value, but they do not swing nearly as sharply as stocks (thus smoothing out the ride), and they have an almost negative correlation to stocks (bonds rise as stocks fall). Holding bonds isn't a loss to your portfolio's potential growth – they add stability and also allow you to effectively rebalance. When stocks make a sharp climb, you will rebalance to purchase bonds at lower prices or when stocks plummet and a long recession follows, you can purchase cheaper stocks with your growing bond portion. In other words, "buy low, sell high." Nearly all investment experts in the US recommend bonds for investors – keep this in mind. When measuring for risk-adjusted returns, an 80/20 portfolio will actually outperform a 100/0 portfolio.

I hope this pamphlet is helpful without being overwhelming. Here's a brief review in a "nutshell":

- Start saving now, get on a budget, pay off high interest (or all) debt
- Open Roth IRAs and max them out before the 403(b) if you want to save the most on taxes
- Choose low-cost index funds that cover the entire US stock, international and bond markets
- Target Retirement or Vangaurd LifeStrategy are simple, yet incredibly smart funds to invest in
- Asset Allocation and diversification lower risk
- Costs are the only determining factor of fund performance; performance data is irrelevant
- Yesterday's winners are almost guaranteed to be tomorrow's average or losing fund
- Buy and hold, don't listen to the news, STAY THE COURSE; rebalance annually on a set date
- Use index funds and ETFs for all retirement, HSA and college fund investing
- Get good Term Life insurance, then cancel any cash value insurance you may have
- Run a retirement calculator to figure out how much you need to save
- Read a few books (some listed below)

Please feel free to email me if you have questions. Some great resources of information are listed below if you want clarification or want to learn more:

Books: *Bogleheads Guide to Investing* by Taylor Larimore, Mel Lindauer and Michael LeBouef – this is where most of my index fund and asset allocation information came from.

The Little Book of Common Sense Investing by John C. Bogle. Straight from the horse's mouth – the father of the index fund explains the elegance and simplicity of owning the entire world's markets at the lowest possible cost.

Total Money Makover by Dave Ramsey – great starter personal finance book, excellent budgeting tools, not-so-great investing advice

Compound Interest Calculator: http://www.moneychimp.com/calculator/compound_interest_calculator.htm

Retirement Calculator: http://money.msn.com/retirement/retirement-calculator.aspx

"Retirement Calculator from Hell": http://www.efficientfrontier.com/ef/998/hell.htm

IRS Qualified Medical Expenses: http://www.irs.gov/publications/p502/index.html

Michigan 529 Plan: https://www.misaves.com/

Michigan ORS: http://www.michigan.gov/orsschools

Michigan 401(k) Plan (non-MPSERS): https://stateofmi.ingplans.com/eportal/welcome.do

Vanguard Investment Group: https://investor.vanguard.com/corporate-portal

HSA Bank (alternate investment account to the poor Health Equity choices): http://www.hsabank.com/hsabank/Accountholders

TD Ameritrade 100 Commission-Free ETFs: https://www.tdameritrade.com/investment-products/etfs.page

Bogleheads Wiki and Investment Forum for great information or asking a question: www.bogleheads.org

Morningstar fund information and research: www.morningstar.com

Google Finance: www.google.com/finance